

PATENT

Attorney Docket No. A-71183/DJB/VEJ
Attorney Matter No. 461124-00077
Application No. 10/009,325***In the Claims:***

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A solid oxide fuel cell system component which is adapted to be exposed to an oxidising atmosphere in the fuel cell system [[system]] and which is formed of a heat resistant alloy [[allow]] having a composition, in wt%, of:

| | |
|----|----------|
| Al | 5.0-10.0 |
| Si | 0.1-3.8 |
| Mn | ≤ 0.5 |
| Cu | ≤ 0.23 |
| Ni | ≤ 0.61 |
| C | ≤ 0.02 |
| P | ≤ 0.04 |
| S | ≤ 0.04 |
| Cr | < 5.0, |

and residue Fe, excluding incidental impurities.

2. (Currently amended) A solid oxide fuel cell system component according to claim 1, which contains no more than about 8.5 wt% Al.

3. (Previously presented) A solid oxide fuel cell system component according to claim 1 which contains less than 0.05 wt% Mn.

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4. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein the alloy has a composition, in wt%, of:

Al 6.0 ± 1.0
Si 1.0 ± 0.5
C 0.005 - 0.02
P ≤ 0.04
S ≤ 0.04
Cr ≤ 0.10
(Al + Si) = 6.5 to 7.5

Residue Fe, excluding incidental impurities.

5. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein the alloy contains no Cr.

6. (Previously presented) A solid oxide fuel cell system component according to claim 1 having a surface layer of Al_2O_3 .

7. (Currently amended) A solid oxide fuel cell system component according to claim 6 wherein the Al_2O_3 surface layer has a thickness in the range of from about 1 to about 10 microns. [[, preferably from about 1 to about 3 microns.]]

8. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein source material for the alloy at least includes scrap metal.

9. (Previously presented) A solid oxide fuel cell system component according to claim 1 which is a gas separator disposed or adapted to be disposed between adjacent fuel cells in the system.

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10. (Previously presented) A solid oxide fuel cell system component according to claim 1 which is a component selected from the group consisting of a manifold, a base plate, a current collector strap, ducting, a heat exchanger and a heat exchanger plate disposed or adapted to be disposed in the solid oxide fuel cell system.

11. (Currently amended) A solid oxide fuel cell system component according to claim 1 [[in]] which [[one or more components]] is adapted to be exposed to a temperature in excess of 750°C and an oxidising atmosphere, [[are in accordance with claim 1.]]

12. (New) A solid oxide fuel cell system component according to claim 6 wherein the Al₂O₃ surface layer has a thickness in the range of from about 1 to about 3 microns.

13. (New) A solid oxide fuel cell system comprising a solid oxide fuel cell system component which is adapted to be exposed to an oxidising atmosphere in the fuel cell system at a temperature in excess of 750°C and which is formed of a heat resistant alloy having a composition, in wt%, of:

Al 5.0-10.0

Si 0.1-3.8

Mn ≤ 0.5

Cu ≤ 0.23

Ni ≤ 0.61

C ≤ 0.02

P ≤ 0.04

S ≤ 0.04

Cr < 5.0,

Residue Fe, excluding incidental impurities.